Drinking Water Source Assessment

Water System

LOS ANGELES COUNTY WATER WORKS DISTRICT 40 (REGION 37)-ACTON

Los Angeles County

Water Source

WELL 37-04

Assessment Date

December, 2001

Assessment Completed By

CDPH Metropolitan District

California Department of Public Health
Drinking Water Field Operations Branch
CDPH Los Angeles District 15

District No.	**15**
System No.	**1910248**
Source No.	**003**
PS Code	**1910248-003**

Vulnerability Summary

District Name CDPH Metropolitan District **District No.** 15 **County** Los Angeles

System Name LOS ANGELES CO WW DIST 37-ACTON **System No.** 1910248

Source Name WELL 37-04 **Source No.** 003 **PS Code** 1910248-003

Completed by CDPH Metropolitan District **Date** December, 2001

According to CDPH records, this Source is Groundwater. This Assessment was done using the Default Groundwater System Method.

A source water assessment was conducted for the **WELL 37-04**

of the **LOS ANGELES CO WW DIST 37-ACTON** water system in **December, 2001** .

The source is considered most vulnerable to the following activities not associated with any detected contaminants:

Storm Drain Discharge Points
Wells - Water supply

Discussion of Vulnerability

Well 37-4 has a history of detected nitrate and barium levels (within the last 10 years). The nitrate levels range from 8.01 mg/L to 14.48 mg/L. The average detected nitrate level within this period is 11.3 mg/L. The barium levels range from 0 ug/L to 536 ug/L. The average detected barium level within this period is 169.4 ug/L. Also, arsenic has been detected within this past year (June 2001) at a level of 2.59 ug/L. Arsenic has been detected only one other time within the past 10 years (9.6 ug/L in 1996). Both barium and arsenic exist naturally in this area. The occurrence of nitrates in this area is probably due to past agricultural practices. The MCL for nitrate, barium, and arsenic are: 45 mg/L, 1,000 ug/L, and 50 ug/L, respectively.

A copy of the complete assessment may be viewed at:

Department of Health Services, Drinking Water Field Operations Branch
1449 W. Temple St., Room 202
Los Angeles, CA 90026

You may request a summary of the assessment be sent to you by contacting:

Vera Melnyk-Vecchio
Regional Engineer, Chief
213 - 580 - 5723
213 - 580 - 5711 (fax)

Vulnerability Ranking

District Name CDPH Metropolitan District **District No.** 15 **County** Los Angeles

System Name LOS ANGELES CO WW DIST 37-ACTON **System No.** 1910248

Source Name WELL 37-04 **Source No.** 003 **PS Code** 1910248-003

Completed by CDPH Metropolitan District **Date** December, 2001

The following PCAs were identified in the assessment and are listed in priority order based on risk to the water supply. Refer to the last page for more information.

Zone	PCA (Risk Ranking)	*	PCA Risk Points	Zone Points	PBE Points	Vulnerability Score
A	Storm Drain Discharge Points (M)		3	5	3	11
A	Wells - Water supply (M)		3	5	3	11
A	Campgrounds/Recreational areas (L)		1	5	3	9
A	RV Parks (L)		1	5	3	9
A	RV/mini storage (L)		1	5	3	9
A	Transportation corridors - Roads/Streets (L)		1	5	3	9
A	Underground storage tanks - Upgraded and/or registered - active tanks (L)		1	5	3	9
B5	Storm Drain Discharge Points (M)		3	3	3	9
B5	Transportation corridors - Railroads (M)		3	3	3	9
B5	Wells - Water supply (M)		3	3	3	9
B10	Utility stations - maintenance areas (H)		5	1	3	9
B10	Wastewater treatment plants (VH in Zone A, otherwise H)		5	1	3	9

*** = A contaminant potentially associated with this activity has been detected in the water supply.**

Explanation of Source Water Assessments and Definition of Terms

A source water assessment was recently completed for this drinking water source. The assessment identifies the vulnerability of the drinking water supply to contamination from typical human activities. The assessments are intended to facilitate and provide the basic information necessary for a local community to develop a program to protect the drinking water supply.

A summary of the complete assessment is provided here. For more information, contact the agency or individual that prepared the assessment (shown in summary). You may also contact the local Department of Public Health Drinking Water Field Operations Branch district office (http://www.cdph.ca.gov/programs/Documents/DDWEM/OriginalDistrictMapCDPH.pdf).
Additional information about assessments can be found at: http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAP.aspx

Terms used in this summary:

Source Water Assessment: An assessment is an evaluation of a drinking water source to determine the "possible contaminating activities" (PCAs) to which the source is most vulnerable. The assessment includes: a delineation of protection zones around the source; an inventory of the types of PCAs within the source protection zones; and an analysis to determine the PCAs to which the source is most vulnerable. The information is compiled into a report that includes a map, calculations, checklists, and a summary of the findings.

Possible Contaminating Activity (PCA): A PCA is a current or historic human activity that is an actual or potential origin of contamination for a drinking water source. PCAs include activities that use, store, produce or dispose of chemicals that have the potential to contaminate drinking water supplies. There are 110 types of PCAs in the California DWSAP program.

PCA Risk Ranking: Each type of PCA is assigned a risk ranking (Very High, High, Moderate, or Low). The risk ranking is based on the contaminant(s) typically associated with that PCA, the likelihood of release from that type of facility based on historical experience, and the mobility of the contaminant(s).

PCA Inventory: The PCA inventory is a review using local knowledge, databases, and on-site evaluations to identify the occurrence and approximate location of PCAs in the source water zones. The inventory for the basic DWSAP assessments is a presence-absence review. If a type of PCA occurs in a zone, a "Yes" is noted in the inventory for that zone, regardless of whether there is one or many of that type of facility within the zone. If a PCA has been associated with a contaminant detected in the water supply, a notation is made in the PCA inventory.

Source Water Zones or Areas: These are areas located around and typically adjacent to a drinking water source that have been identified as initial protection areas.

For groundwater sources, there are typically three concentric circular zones around a source (Zones A, B5 and B10). The sizes of the are determined based on characteristics of the source. PCAs located in the inner Zone A are considered more of a risk to the water supply than PCAs located in the middle Zone B5. Similarly, PCAs located in Zone B5 are considered more of a risk than PCAs located in the outer Zone B10.

For surface water sources, the watershed is defined as the overall protection area, and as an option, zones are defined closer to the source. Two types of zones are typically established. Zone A is the area within and near the surface water body and its tributaries. Zone B is an area within 2,500 feet of the intake, not including areas in Zone A. For surface water sources, PCAs located in Zone A are considered a greater threat than PCAs located in Zone B. PCAs located on the watershed outside of the zones are considered to be of less risk to the water supply. If zones have not been defined, PCAs are considered to be of equal risk regardless of location on the watershed.

Physical Barrier Effectiveness (PBE): The PBE for a source is an evaluation of the ability of the source and the surrounding area to prevent the movement of contaminants into the source. The PBE is based on the construction and operation features of the source, and the characteristics of the surrounding area. A source is assigned a PBE of Low, Moderate or High, where High indicates that the physical barriers of the source and site are very effective in preventing the movement of contaminants. By design, typical groundwater sources will have Moderate PBE, while typical surface water sources will have Low PBE. This is due to the greater exposure of surface water sources to contamination.

Vulnerability Ranking: The vulnerability ranking is a summary of the PCAs identified in the assessment prioritized by the risk that they pose to the water supply. The prioritization is based on the risk associated with a PCA, the zone in which it occurs, and the PBE of the source.
In the vulnerability ranking, points are assigned as follows:

PCA risk ranking	Very High = 7	High = 5	Moderate = 3	Low = 1	Unknown in any zone = 0
Zone (Groundwater)	A = 5	B5 = 3	B10 = 1		
Zone (Surface water with zones)	A = 5	B = 3	Watershed = 1		
Zone (Surface water without zones)	Watershed = 5				
Physical Barrier Effectiveness	Low = 5	Moderate = 3	High = 1		

The points for each type of PCA in each zone are totaled to give a vulnerability score, and the PCAs are ranked in order from the highest score to the lowest score. PCAs associated with detected contaminants are ranked at the top, regardless of vulnerability score. By definition, groundwater sources are not considered vulnerable to PCAs with scores less than 8, and surface water sources are not considered vulnerable to PCAs with scores less than 11. It should be noted that the vulnerability ranking scores do not have a direct quantitative value. Rather, the points are used only to relatively rank the types of PCAs for an individual source.

Note: Some of the summaries do not include a vulnerability ranking. If the assessment was done on paper and the details were not entered into the database, the vulnerability ranking is not available here. In addition, alternate methods of determining vulnerability were allowed in some cases, and the vulnerability ranking is not in the database.

Vulnerability Summary: The source is considered most vulnerable to the PCAs with the highest score, and to PCAs associated with detected contaminants. These PCAs are noted in the vulnerability summary. Further details or discussion may be provided in the vulnerability discussion.